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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)
047092.00101

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] on _____ Signature_____ Typed or printed name _____	Application Number 10/512,061	Filed October 21, 2004
	First Named Inventor Haitao TANG et al.	
	Art Unit 2617	Examiner Christopher M. Brandt

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

The review is requested for the reason(s) stated on the attached sheet(s).
       Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☑ attorney or agent of record.
Registration number _____ 62,382 _____.

☐ attorney or agent acting under 37 CFR 1.34.

Registration number if acting under 37 CFR 1.34 _____

Signature

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Telephone number

July 31, 2009
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required.
Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:	Confirmation No.: 8579
Haitao TANG et al.	Art Unit: 2617
Application No.: 10/512,061	Examiner: Christopher M. Brandt
Filed: October 21, 2004	Attorney Dkt. No.: 047092.00101

For: DISTRIBUTION SCHEME FOR DISTRIBUTING INFORMATION IN A NETWORK

PRE-APPEAL BRIEF REQUEST FOR REVIEW

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450   July 31, 2009

Sir:

In accordance with the Pre-Appeal Brief Conference Pilot Program guidelines set forth in the July 12, 2005 Official Gazette Notice, Applicants hereby submit this Pre-Appeal Brief Request for Review of the final rejections of claims 25-68 in the above identified application. Claims 25-68 were finally rejected in the Office Action dated April 1, 2009. Applicants filed a Response to the Final Office Action on July 1, 2009, and the Office issued an Advisory Action dated July 20, 2009 maintaining the final rejections of claims 25-68. Applicants hereby appeal these rejections and submit this Pre-Appeal Brief Request for Review.

The Final Office Action rejected claims 25, 28-40, 42-44, 46-47, 49-52, and 55-67 under 35 U.S.C. §103(a) as being unpatentable over Cidon et al. (Control Mechanisms for High Speed Networks), hereinafter Cidon, in view of Yum et al. (Multicast Source routing in Packet-Switched Networks), hereinafter Yum, and further in view of Reinshmidt et al. (U.S. 2002/0150041), hereinafter Reinshmidt. Applicants submit that there is clear error due to the fact that the Final Office Action has failed to establish a prima facie case that independent claims 25, 42, 46, and 49-52, upon which claims 26-41, 43-45, 47-48, and 53-68 are dependent, are obvious, because Cidon, Yum, and Reinshmidt, whether considered individually or in combination, fails to disclose, or suggest, at least one element of the independent claims.

Applicants respectfully submit that the present claims recite subject matter which is neither disclosed nor suggested by the combination of Cidon, Yum, and Reinshmidt, and that,

therefore, the final rejections are clearly improper and without basis. Specifically, the combination of Cidon, Yum, and Reinshmidt fails to disclose, or suggest, at least, *"wherein said network node is configured to generate, for each of its immediate offspring nodes, a respective updating information and to send said respective updating information to all of the immediate offspring nodes ... wherein the respective updating information sent to the immediate offspring nodes differs for each of the immediate offspring nodes based on the spanning tree structure,"* as recited in independent claim 25, and similarly recited in independent claims 42, 49, 50, and 51; and *"an updater configured to update said branch information in said network parameter information before distributing said network parameter information to said network nodes ... wherein the updated information is sent to the network nodes and said updated information differs for each of the network nodes based on the spanning tree topology,"* as recited in independent claim 46, and similarly recited in independent claim 52.

The Final Office Action correctly concluded that Cidon fails to disclose, or suggest, generating update information and also fails to disclose, or suggest, the updating information that is sent to immediate offspring nodes differing for each of the immediate offspring nodes. (See Final Office Action at page 5). Furthermore, for at least the following reasons, Yum and Reinshmidt do not cure the deficiencies of Cidon.

Yum describes an ANR linear source-routing method, where the headers of a packet contain an ANR field where the where the ith word defines the outgoing link label of the ith hop along the packet's path. All routing information is assembled at the source node and put into the packet, to ensure that no table look-up and external processing is needed beyond the source node as the packet proceeds to each intermediate node towards its destination. (See Yum at 11B.2.1-11B.2.2, Introduction).

In the Final Office Action, the Examiner took the position that the assembling of all the routing information at the source node discloses the *"updating information"* recited in the independent claims. Applicants respectfully submit that the Examiner's position is incorrect, because the routing information described in Yum is distinct from the *"updating information"* recited in the independent claims. Independent claim 25 recites *"detecting a network parameter change in a network node,"* and *"distributing network parameter information indicating said network parameter change from said network node to said other nodes."* Independent claims 42, 46, and 49-52 recite similar limitations. Thus, the *"updating information"* of the independent

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claims relates to the network parameter change in a network node. More specifically, in an embodiment of the invention, when any change of a parameter happens in a node, parameter change information is initiated by the node and distributed to the other network nodes. (See Specification at page 6, lines 32-34). In contrast, in Yum, the routing information merely relates to the outgoing link label of the respective hop along the packet's path. Thus, the routing information of Yum fails to disclose the *"updating information,"* as recited in independent claim 25, and similarly recited in independent claims 42, 46, and 49-52. Therefore, based upon this clear error, the rejection should be withdrawn.

In the Advisory Action, the Examiner further took the position that, while he agrees the specification discloses that *"updating information,"* is related to network parameter changes in a network node, the claims do not define the term *"updating information,"* and therefore, a reasonable interpretation of the term could be routing information. (See Advisory Action at page 2). However, during patent examination, an Examiner must give pending claims their broadest reasonable interpretation consistent with the specification. (See MPEP § 2111 – Claim Interpretation; Broadest Reasonable Interpretation; see also *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 132 (Fed. Cir. 2005). Thus, the Examiner's refusal to consider the specification in interpreting the term *"updating information"* to read on the routing information described in Yum is clear error, and thus, the rejection should be withdrawn.

Reinshmidt describes a packet routing scheme where a packet starts at an originator node and is forwarded to nodes along an predetermined path. An offset number is implemented in the packet header, so that the next consecutive node along the path will be able to recognize whether the packet is to be forwarded to the next consecutive node, or whether the packet has arrived at its destination. The offset number is compared to the current hop number, which is updated every time the packet enters a node. If the offset number and the current hop number differ, the node puts the next consecutive node's IP address (to which the packet should be forwarded) as the next destination, and updates the current hop number. The modified packet is then transmitted to the next destination. (See Reinshmidt at paragraph 0079).

In the Final Office Action, the Examiner took the position that the next consecutive nodes described in Reinshmidt discloses the *"immediate offspring nodes"* recited in independent claim 25, and similarly recited in the other independent claims. Applicants respectfully submit that the Examiner's position is incorrect, because of the following reasons. First, Reinshmidt is not

related to any spanning tree structure, where the next nodes are serially disposed and only the first next node can be considered as an immediate node with respect to the initiating node, and all other nodes are only immediate with respect to its preceding node along the chain structure. In contrast, according to an embodiment of the invention, the offspring nodes are disposed in parallel within a spanning tree structure in such a manner that each offspring node can be an immediate node with respect to the initiating node. (See Specification at page 10, lines 3-10; Figure 6). Moreover, in Reinshmidt, the packet is sequentially forwarded from a node to the next consecutive node according to a comparison-based decision made at that next consecutive node, until it arrives at the destination node, where the hop number of the packet is updated at each intermediate node. Thus, each intermediate node receives a packet with a different hop count. In contrast, according to an embodiment of the invention, the updating information is generated at the initiating node, and the updating information is received at each intermediate node. Thus, the next consecutive nodes of Reinshmidt fails to disclose the "*immediate offspring nodes*," as recited in independent claim 25, and similarly recited in independent claims 42, 46, and 49-52. Therefore, based upon this clear error, the rejection should be withdrawn.

Finally, while Cidon describes several control mechanisms for high speed networks where the topology broadcast function using a spanning tree structure is merely mentioned as one of a plurality of possible mechanisms, Yum describes a multicast source routing mechanism where a spanning tree structure is used for source routing for multicast packets to provide a point-to-multipoint transmission function. Thus, there is no motivation for one of ordinary skill in the art, at the time the present invention was made, to have incorporated the teachings of Yum into the invention of Cidon in order to a disclose a generation of updating information to be forwarded. Because there is no motivation, the Examiner has engaged in an impermissible hindsight analysis in order to combine the cited references of Cidon and Yum, which constitutes clear error. Accordingly, the rejection should be withdrawn.

In view of the above, Applicants respectfully assert that the combination of Cidon, Yum, and Reinshmidt does not disclose, or suggest all of the limitations of independent claims 25, 42, 46, and 49-52, and that, therefore, the final rejection is improper and without basis. Accordingly, Applicants respectfully request the reconsideration and withdrawal of the § 103(a) rejection.

The Final Office Action also rejected claims 26, 27, 41, 45, 48, 53, 54 and 68 under 35 U.S.C. §103(a) as being unpatentable over Cidon in view of Yum, Reinshmidt and further in

view of Neumiller et al. (WO 00/70782), hereinafter Neumiller. Claims 26, 27, and 41 depend upon independent claim 25, claims 45, 53, 54 and 68 depend upon independent claim 42, and claim 48 depends upon independent claim 46. As stated above, the combination of Cidon, Yum, and Reinshmidt does not disclose, or suggest, all the elements of independent claims 25, 42, and 45. Neumiller also fails to disclose, or suggest, all the elements of independent claims 25, 42, and 46, and thus, does not cure the deficiencies in Cidon, Yum, and Reinshmidt. Consequently, the combination of Cidon, Yum, Reinshmidt, and Neumiller also fails to disclose, or suggest, all the elements of claims 26, 27, 41, 45, 48, 53, 54, and 68. Furthermore, said claims should be found allowable for at least their dependence on independent claims 25, 42, and 46, respectively, and for the specific limitations recited therein.

Reconsideration and withdrawal of the rejections, in view of the clear errors in the Office Action, is respectfully requested. In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

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Notice of Appeal
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